

**REMARKS**

Claims 1-17 are canceled and new claims 18-37 are presented. Claims 18, 31 and 35 are independent; there are 3 independent claims and 20 claims total. The amendments to the claims as indicated herein do not add any new matter to this application. Furthermore, amendments made to the claims as indicated herein have been made to exclusively improve readability and clarity of the claims and not for the purpose of overcoming alleged prior art. Each issue raised in the Office action mailed April 19, 2007 is addressed hereinafter.

**I. ISSUES NOT RELATING TO PRIOR ART**

**A. POWER OF ATTORNEY & CORRESPONDENCE ADDRESS INDICATION**

Applicants are now represented by registered practitioners. Each inventor has signed a power of attorney and correspondence address indication form that is submitted concurrently herewith. Approval of the forms and association of the case with Customer No. 29989 are respectfully requested.

**B. INFORMATION DISCLOSURE STATEMENT**

The specification as originally filed attempted to cite references at page 1 under the heading “Cross-Reference to Related Applications.” An Information Disclosure Statement is submitted concurrently herewith to properly cite the referenced patent documents, except for one that is already cited in the April 19 Office action. The IDS is submitted under 37 C.F.R. 1.97(c) and the fee of \$180 is submitted concurrently herewith. Applicants respectfully request the Examiner to consider the references and to return an initialed copy of the SB-08 form with the next Office communication.

**C. SPECIFICATION, CLAIM OBJECTIONS, SECTION 112 ISSUES**

Pages 2-6 of the Office action state various objections to the specification and claims, and claim rejections under 35 U.S.C. 112. All claims 1-17 are canceled herein and therefore the objections and rejections are moot. Applicants have carefully checked the new claims for proper antecedent basis, support in the specification, and compliance with Section 112, and believe that

all issues identified in the Office action have been addressed in the new claims. Applicants regret any inconvenience to the Examiner resulting from the unfamiliarity of the *pro se* applicants with Office requirements as reflected in the original claims.

Support for the new claims is found in the specification and claims of the disclosure as originally filed at least as follows:

New Claim	Support—Specification Paragraph(s)	Support—In Original Claim
18	37, 38, 82-88	1, 2, 3
19	96-104	
20	88	4
21	20, 38, 40, 79	5, 8
22	82-85, FIG. 12	7, 17
23	82-85, FIG. 12	6, 17
24	63	10
25	89-95	11
26	89-95	11, 12
27	98	14
28	98-104	15, 16
29	98-104	15, 16
30	100, 102, FIG. 12	17
31	37, 38, 82-88	1, 2, 3
32	82-85, FIG. 12	7, 17
33	82-85, FIG. 12	6, 17
34	100, 102, FIG. 12	17
35	37, 38, 82-88, 96-104	1, 2, 3, 4
36	100, 102, FIG. 12	17
37	82-85, FIG. 12	7, 17

The identification of an original claim in the table above does not mean that the new claims have the same scope or any relationship in scope to the referenced original claim.

## II. ISSUES RELATING TO PRIOR ART

### A. CLAIMS 1-4, 6, 7, AND 14—FRANK

Claims 1-4, 6, 7, and 14 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Frank US 2003/0159129. The rejection is respectfully traversed.

Claims 1-4, 6, 7, and 14 are canceled herein and therefore all the rejections are moot. The new claims recite subject matter that Frank does not anticipate.

Each of the independent claims (18, 31, 35) recites in part:

based on the first data, displaying, on a computer display, a value of the variable using the first widget in the graphical user interface;  
receiving user input specifying a modification of the first widget;  
changing the first data to second data describing a second widget that is different from the first widget;  
based on the second data, displaying the second widget in the graphical user interface in place of the first widget ...

In sharp contrast, Frank has no description of changing from a first widget to a second, different widget. The components identified in Frank are connected to one and only one kind of widget. While Frank's components can update a particular widget with a new value during runtime, Frank's components cannot link to an entirely different widget during runtime. For example, applicants' specification describes the possibility of changing a widget from a scalar numeric display to a slider during runtime; Frank cannot do this.

Generally, Frank describes creating software applications that allow a domain expert to visualize a real-time system and make changes in runtime. Frank considers modification of the execution flow or implementation of new behavior (see [0003]). Frank proposes using a “unique component design for software components” (see [0019]-[0023]), which uses “object oriented primitives” (slots) [0024], supporting data storage [0025] and links [0026]. For Frank, a program for control of a real-time system should be designed and written according to strict rules using a component model.

Applicants' disclosure is not concerned with complex runtime changes such as modification of the execution flow or implementation of new program behavior. Therefore, applicants' disclosure does not require programs to be designed and written according to a component model or other strict rules—any programming environment can be used. With applicants' disclosure the process of programming and the resulting programs become simpler, because GUI-related parts of the program are simplified. Thus, the overall approach of Frank **teaches away** from applicants' approach.

Applicants' disclosure focuses on separation of computational and presentation layers of programs. As a result, applicants' disclosure allows conversion of GUI widgets during runtime, and simplified development of a program and the GUI of the program.

Conversely, Frank does not focus on GUI development. Frank only describes using a GUI for software customization (see [0003]). Frank only describes simple GUI changes such as resizing of widgets, displacement of widgets, and output format change—not conversion of one widget into a different kind of widget. Frank describes **configuration** of a GUI, not **conversion** of GUI widgets. Indeed, the description of widgets at Frank paragraph [0066] is **entirely cumulative** to applicants' disclosure.

In Paragraph [0067] Frank describes using executable code (“extension”) associated with each widget:

[0067] There is some executable code associated with each widget, referenced in the configuration file. This code is referred to as an extension. Extensions are located on the user's computer or on another computer connected to the user's computer by a computer network. Extensions can be located by references included in the configuration file. The engine parses the configuration file and locates the exten-

sions. The engine then loads the extensions, downloading them over a computer network, if necessary (step **804**). The engine then executes all the extensions in parallel. Once the extensions are executing they display the user interface with the help of the engine. Each extension displays the widget it is associated with. The engine displays the general layout, described in the configuration file, and it manipulates the displayed widgets in order to size and place them according to the configuration file. The extensions optionally communicate with other software modules, and change/update the widgets they are associated with according to these communications. In an exemplary embodiment a widget is a graphical representation of a component and the extension associated with that widget communicates with the component over a computer network. The extensions also optionally interact with the user, by accepting and responding to commands by the user. The extensions can also send or receive information from other software components, such as components, based on interaction with the user. The widgets thus continuously update, based on the software code of the extensions, communications with other software modules, and/or interaction with the user. The extensions can furthermore send control signals received from the user to other software modules.

The extensions display widgets inside the general layout of the screen and optionally interact with the user, by accepting and responding to commands by the user and sending control signals to other software modules. However, Frank allows only limited changes to the widgets. Frank can only size widgets and place widgets according to a configuration file. Further, each extension comprises code for only one widget (“Each extension displays the widget it is associated with.”).

In Paragraph [0068] Frank describes additional functions of an extension:

[0068] For example, a widget represents a thermostat, which is controlled by a thermostat component. The extension corresponding to the thermostat widget sends requests for updated temperature readings over a network. The thermostat component answers. The extension then updates the temperature. The user interacts with the widget. For example, by clicking on the widget the user expresses a desire to view the temperature in degrees Celsius instead of Fahrenheit. The extension receives that request and updates the widget. The user can also send commands to the actual thermostat through the widget. For example, if the user wishes to switch the thermostat off, or to put it into a power saving mode, the widget will forward the command to the thermostat component.

The functions involve the simple change of an output format of numerical data (the temperature in degrees Celsius instead of Fahrenheit). However, each component is connected only to one widget through one extension. There is no description of changing a first widget to an entirely different widget, or changing a connection of a component from a first widget to a second widget.

In sharp contrast, applicants' disclosure and claims enable representing the same data by entirely different widgets. For instance, the user can display a numerical parameter in a text box or using a slider. Frank has no disclosure of the claimed changing.

Frank states that the visualization system [0065] works on the basis of a configuration file that includes the layout of visual presentation, references to one or more widgets, and placements and/or sizing information for these widgets [0065]. However, Frank has no description that a user can modify the configuration file at run time.

For all these reasons, Frank does not anticipate claim 18, 31, or 35. Each of the dependent claims 19-30, 32-34, and 36-37 depends directly or indirectly from one of claims 18, 31, and 35 and incorporates the subject matter of the base claim by dependency. Therefore, Frank does not anticipate the dependent claims for the same reasons given above for claims 18, 31, and 35. Reconsideration is respectfully requested.

**B. CLAIMS 5, 8, 9, 13, 15, 16—FRANK IN VIEW OF MCLEAN**

Claims 5, 8, 9, 13, 15, and 16 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Frank in view of McLean 2002/0099456. The rejection is respectfully traversed.

Claims 5-16 are canceled and therefore the rejection is moot. As to the new claims 18-37, McLean does not cure the deficiencies of Frank stated in section A above. Therefore, any combination of Frank with McLean does not provide the complete combination that is recited in claims 18-37. Reconsideration is respectfully requested.

**C. CLAIMS 11, 12—FRANK IN VIEW OF KASHIWAGI**

Claims 11 and 12 stand rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Frank in view of Kashiwagi US Pat. No. 6,577,319. The rejection is respectfully traversed.

Claims 11 and 12 are canceled and therefore the rejection is moot. As to the new claims 18-37, Kashiwagi does not cure the deficiencies of Frank stated in section A above. Therefore, any combination of Frank with Kashiwagi does not provide the complete combination that is recited in claims 18-37. Reconsideration is respectfully requested.

**D. CLAIM 17—FRANK IN VIEW OF MCLEAN AND LOGSTON**

Claim 17 stands rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Frank in view of McLean and Logston 2004/0236860. The rejection is respectfully traversed.

Claim 17 is canceled and therefore the rejection is moot. As to the new claims 18-37, McLean and Logston do not cure the deficiencies of Frank stated in section A above. Therefore, any combination of Frank with McLean and Logston does not provide the complete combination that is recited in claims 18-37. Reconsideration is respectfully requested.

**III. CONCLUSIONS & MISCELLANEOUS**

For the reasons set forth above, all of the pending claims are now in condition for allowance. The Examiner is respectfully requested to contact the undersigned by telephone relating to any issue that would advance examination of the present application.

A petition for extension of time, for one (1) month and otherwise to the extent necessary to make this reply timely filed, is hereby made. If applicable, the petition for extension of time fee and other applicable fees are submitted herewith. If any applicable fee is missing or insufficient, throughout the pendency of this application, the Commissioner is hereby authorized to any applicable fees and to credit any overpayments to our Deposit Account No. 50-1302.

Respectfully submitted,

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